Arizona's Common Core Standards
Mathematics

Summary of Changes

Seventh Grade

ARIZONA DEPARTMENT OF EDUCATION
High Academic Standards for Students
State Board Approved June 2010
October 2012 Publication

GRADE 7			
Removed	**Moved to a Different Grade Level**	**Moved from another Grade Level**	**New Standards**
M07-S1C3-04 (2008) Estimate the measure of an object in one system of units given the measure of that object in another system and the approximate conversion factor.	M07-S1C1-02 (2008) Find or use factors, multiples, or prime factorization within a set of numbers. MOVED to 6.NS.4	M08-S3C4-02 (2008) MOVED to 7.RP.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. *For example, if a person walks ½ mile in each ¼ hour, compute the unit rate as the complex fraction ½/¼ miles per hour, equivalently 2 miles per hour.*	7.RP.2 Recognize and represent proportional relationships between quantities. d. Explain what a point (*x*, *y*) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, *r*) where *r* is the unit rate.
M07-S2C3-02 (2008) Solve counting problems using Venn diagrams and represent the answer algebraically.	M07-S1C1-03 (2008) Compare and order rational numbers using various models and representations. MOVED to 6.NS.7	M08-S1C2-03 (2008) MOVED TO 7.RP.3 Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.	7.NS.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. a. Describe situations in which opposite quantities combine to make 0. *For example, a hydrogen atom has 0 charges because its two constituents are oppositely charged.*
M07-S2C4-01 (2008) Use vertex-edge graphs and algorithmic thinking to represent and find solutions to practical problems related to Euler/Hamilton paths and circuits.	M07-S1C2-04 (2008) Represent and interpret numbers using scientific notation (positive exponents only). MOVED to 8.EE.3	M06-S1C2-01(2008) MOVED TO 7.NS.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.	

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M07-S5C2-09 (2008) Solve logic problems using multiple variables and multiple conditional statements using words, pictures and charts.	M07-S1C3-01 (2008) Estimate and apply benchmarks for rational numbers and common irrational numbers. MOVED to 8.NS.2	MHS-S1C1-03 MOVED TO 7.NS.1b Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process.	
M07-S5C2-10 (2008) Demonstrate and explain that the process of solving equations is a deductive proof.	M07-S1C3-03 (2008) Estimate square roots of numbers less than 1000 by locating them between two consecutive whole numbers. MOVED to 8.NS.2	M08-S1C1-04 (2008) and MHS-S1C1-03 (2008) MOVED TO 7.NS.1c Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.	
	M07-S2C1-01 (2008) Solve problems by selecting, constructing, and interpreting displays of data including multi-line graphs and scatterplots. MOVED to 8.SP.1	M06-S4C4-03 (2008) MOVED TO 7.G.1 Solve problems involving scale drawings of geometric figures, such as computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.	
	M07-S2C1-02 (2008) Interpret trends in a data set, estimate values for missing data, and predict values for points beyond the range of the data set. MOVED to 8.SP.1	M08-S4C1-02 (2008) MOVED TO 7.G.3 Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.	

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	M07-S2C1-03 (2008) Identify outliers and determine their effect on mean, median, mode, and range. MOVED to 8.SP.1	M06-S4C1-01 (2008) MOVED TO 7.G.4 Know the formulas for the area and circumference of a circle and solve problems; give an informal derivation of the relationship between the circumference and area of a circle.	
	M07-S3C3-02 (2008) Evaluate an expression containing one or two variables by substituting numbers for the variables. MOVED to 6.EE.1, 6.EE.2, 6.EE.4	M06-S4C1-02 (2008) and MOVED TO 7.G.5 Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.	
	M07-S3C3-04 (2008) Translate between graphs and tables that represent a linear equation. MOVED to 6.EE.9	M08-S2C1-05 (2008) and MHS-S2C1-01 (2008) MOVED TO 7.SP.2 Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.	

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	M07-S4C1-01 (2008) Recognize the relationship between central angles and intercepted arcs; identify arcs and chords of a circle. MOVED to HS.G-C.2	M08-S2C1-03 (2008) MOVED TO 7.SP.3 Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.	
	M07-S4C1-04 (2008) Describe the relationship between the number of sides in a regular polygon and the sum of its interior angles. MOVED to HS.G-CO.10	MHS-S2C1-05 (2008) MOVED TO 7.SP.4 Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations.	

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	M07-S4C1-05 (2008) Identify corresponding parts of congruent figures MOVED to 8.G.2	M04-S2C2-01 and M05-S2C2-01 (2008) MOVED TO 7.SP.5 Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around ½ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.	
	M07-S4C2-01 (2008) Model the result of a double transformation (translations or reflections) of a 2-dimensional figure on a coordinate plane using all four quadrants. MOVED to 8.G.1, 8.G.2, 8.G.3, 8.G.4	M06-S2C2-01 and M06-S2C2-02 (2008) MOVED TO 7.SP.7a Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process.	

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	M07-S4C4-02 (2008) Identify polygons having the same perimeter or area. MOVED to 6.G.1	M08-S2C2-02 (2008) and MHS-S2C2-05 (2008) MOVED TO 7.SP.7b Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process.	
	M07-S5C1-01 (2008) Create an algorithm to determine the area of a given composite figure. MOVED to 6.G.1	M08-S2C2-01(2008) MOVED TO 7.SP.8a Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.	
		M06-S2C2-03 (2008) and M08-S2C2-03 MOVED TO 7.SP.8b Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., "rolling double sixes"), identify the outcomes in the sample space which compose the event.	
		NOTE: There is an increased expectation at seventh grade to use measures of center and variability to compare two populations. Please see crosswalk for detailed information.	